



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,453	11/24/2003	Vladimir Fuflyigin	13445-026001 / OG-16	4085

26161 7590 02/09/2005

FISH & RICHARDSON PC
225 FRANKLIN ST
BOSTON, MA 02110

EXAMINER

MEEKS, TIMOTHY HOWARD

ART UNIT	PAPER NUMBER
----------	--------------

1762

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/720,453

Applicant(s)

FUFLYIGIN, VLADIMIR

Examiner

Timothy H. Meeks

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-46 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20041206</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34 requires a polymer but depends from claim 32 which requires a glass. These would appear to be mutually exclusive. It is believed that claim 34 should depend from claim 30 rather than claim 32.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 10, 11, 12, 17, 19, 25, 29-33, 35, 36, and 44-46 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 060085 (EP 085).

The claimed process is disclosed at page 7, lines 9-12, page 11, line 23 to page 12, line 4, and page 16, lines 5-14 wherein a glass tube is coated with a first chalcogenide glass layer and then a second chalcogenide glass layer as the composition is radially changed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085.

EP 085 is silent as to the pressure of the first and second gas compositions. However, because it is well settled that "Where principal difference between claimed process and that taught by reference is a temperature difference, it is incumbent upon applicants to establish criticality of that difference." (Ex Parte Khusid, 174 USPQ 59) and because this principal would clearly be applicable to other process parameters such as pressure, it would have been obvious to use pressures in the claimed absent evidence showing a criticality for use of the claimed pressures.

Claims 2-9, 26, 28, and 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Ellison et al. (6,542,690).

EP 085 discloses use of a flame MCVD deposition process rather than an rf or microwave induced plasma method for depositing the glass. However, because Ellison discloses at col. 3, lines 33-55 and col. 11, lines 33-40 that deposition of chalcogen-containing glass using rf or microwave induced PECVD alleviates the problem of unwanted decomposition of reactant materials which leads to byproducts or physical

Art Unit: 1762

defects in the glass, it would have been obvious to have used the plasma CVD method to deposit the chalcogenide glass layers to prevent unwanted decomposition of reactant materials.

EP 085 discloses a second layer of chalcogenide glass instead of an oxide glass. However, because Ellison discloses in the abstract that chalcogenide glass has a higher refractive index than oxide glass and at col. 9, lines 49-54 that some of the inner layers may have higher refractive indexes than smaller radius layers, it would have been obvious to have deposited an oxide glass having lower refractive index as one the inner layers after depositing the higher refractive index chalcogenide glass.

Claims 13-16 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Aslami (4,212,663).

EP 085 does not explicitly disclose use of a carrier gas in the first or second gas compositions. However, because Aslami discloses at col. 2, line 66 to col. 3, line 5 and col. 3, lines 65-68 that carrier gases are useful for the CVD glass forming process to control the reagent provided and hence control the refractive index, it would have been obvious to use a carrier gas to provide this effect. The examiner takes official notice that nitrogen and noble gases such as argon are very well known for their use as carrier gases in CVD processes and hence it would have been obvious to sue these conventional gases for this purpose.

Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Ellison as applied above and further in view of EP 955273 (EP 273).

EP 085 does not disclose use of N_2O . However, because EP 273 discloses in the abstract that N_2O lowers the reaction temperature in MCVD and hence produces more uniform layers, it would have been obvious to use N_2O to achieve this advantage.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 085 in view of Francis et al. (5,609,660).

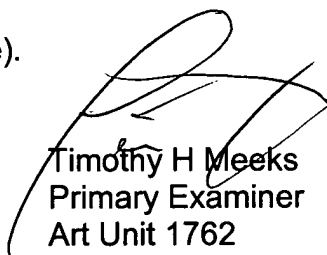
EP 085 discloses a glass tube rather than a polymer. However, because Francis discloses at col. 3, lines 15-30 that polymeric optical fibers are useful for forming optical waveguides, it would have been obvious to use a polymeric tube for the layers of chalcogenide glass as this is a conventional waveguide material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy H. Meeks whose telephone number is (571) 272-1423. The examiner can normally be reached on Mon 6-6 and Tues-Thurs 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1762

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy H Meeks
Primary Examiner
Art Unit 1762